

# March 19, 2013 Bulletin 120 Update

We've finished the March 19, 2013 Bulletin 120 (B120) forecast update. The forecast includes observed conditions through the morning of March 19, 2013 and is posted at <http://cdec.water.ca.gov/cgi-progs/iudir?s=b120up>.

## **Forecast Summary:**

Considering the rivers forecasted in the B120 update, the projected median April-July runoff in the major Sierra river basins ranges from 24 percent on the Tule River to 72 percent for the Total Inflow to Shasta Lake. All forecasts have dropped since the March 1 B120 forecast and the largest drops are for rivers south of the Tuolumne River. Since the last forecast on March 12, the forecasts have dropped an average of 5 percent. The smallest drop was 3 percent for the Inflow to Shasta Lake and the largest drop was 8 percent for the Kings River at Pine Flat. These large drops are due to much less than median precipitation for the 7-day period. More importantly, there was a noticeable decrease in snow water content (SWC) instead of the usual increase as April 1 approaches. See [http://cdec.water.ca.gov/cgi-progs/products/PLOT\\_SWC.pdf](http://cdec.water.ca.gov/cgi-progs/products/PLOT_SWC.pdf).

## **Runoff:**

On March 12, no river forecasted in the update was flowing at over 45 percent of its monthly March average. At the time of the March 19 forecast, however, eight rivers were flowing at a rate **greater than or equal to** 45 percent of the March average despite negligible precipitation during the previous week. This is another indication of the snowmelt mentioned in the Forecast Summary.

## **Precipitation:**

March continues to be very dry. Through the morning of March 21, 2013, the Northern Sierra 8-Station index had recorded 1.5 inches of precipitation since March 14 and 3.1 inches since March 1. The seasonal total-to-date is 38.4 inches, representing 97 percent of average to date and 77 percent of the expected Water Year total of 50 inches. Note that the seasonal total is slightly less than average despite the fact that the January-February total was a record low.

As of the morning of March 21, 2013, the San Joaquin 5-Station Index showed a gain of only 0.3 inches of precipitation since March 14 and 1.4 inches since March 1. The seasonal total-to-date is 22.7 inches, representing 72 percent of average-to-date and 56 percent of the expected Water Year total of 40.8 inches.

## **Snowpack:**

Regionally, the automated snow sensor data, for March 21, is indicating that the Northern Sierra, Central Sierra, and Southern Sierra snowpack are 60, 61, and 47 percent of their respective March 21 averages. Since March 1, none of the three regions showed a gain in SWC (the Northern Sierra and Southern Sierra regions each lost approximately one inch of SWC). Consequently, the percent of normal for the date dropped 9, 5, and 12 percent of average for the North, Central, and South regions respectively.

## **Weather and Climate Outlook:**

Over the next 6 days, the forecast calls for dry conditions throughout California. Freezing elevations currently range widely from 4,000 feet (near Mt. Shasta) to 10,000 feet (San Joaquin Region) and should

remain fairly stable over that period. The 6-10 day forecast (March 26-30) calls for below normal temperatures over the entire California coast and equal chances of above and below average precipitation for the entire state.

The NWS Climate Prediction Center's (CPC) 30-day outlook for April, updated this morning, suggests increased chances of below normal temperatures from the Sierra ridge to the coast. The same outlook calls for increased chances of below normal precipitation for all of California.

The CPC's three-month outlook (April through June), updated this morning, suggests equal chances of above and below normal temperatures for all of California except for the Mojave Desert, where above normal temperatures are expected. This forecast extends into the Lower Colorado River basin also. The precipitation outlook calls for increased chances of below normal precipitation for the entire state except for far Southern California where equal chances of above and below normal precipitation are forecast.

**Next Update:**

The next Bulletin 120 update for conditions on March 26, 2013 will be available on Thursday, March 28, 2013.

If you have any questions regarding this forecast or need assistance prior to that update, please contact a member of the Snow Surveys staff. We are happy to help.

**Snow Surveys Staff Contact Information:**

Dave Rizzardo, Chief	( <a href="mailto:david.rizzardo@water.ca.gov">david.rizzardo@water.ca.gov</a> )	916-574-2983
John King	( <a href="mailto:john.j.king@water.ca.gov">john.j.king@water.ca.gov</a> )	916-574-2637
Steve Nemeth	( <a href="mailto:stephen.nemeth@water.ca.gov">stephen.nemeth@water.ca.gov</a> )	916-574-2634
Andy Reising	( <a href="mailto:andrew.reising@water.ca.gov">andrew.reising@water.ca.gov</a> )	916-574-2181
Richard Mora	( <a href="mailto:richard.mora@water.ca.gov">richard.mora@water.ca.gov</a> )	916-574-2636